

**H.R. 2413,**  
***The Weather Forecasting Improvement Act of 2013***  
**As amended by the Subcommittee on Environment on July 9, 2013**  
**Section by Section Analysis**

Section 1. Short Title. This section establishes the short title as the “Weather Forecasting Improvement Act of 2013”.

Section 2. Public Safety Priority. This section directs the Under Secretary of the National Oceanic and Atmospheric Administration (NOAA Administrator) to make weather forecasting to protect lives and property NOAA’s top planning and management priority in relevant line offices.

Section 3. Weather Research and Forecasting Innovation. This section directs the Assistant Administrator of the Office of Oceanic and Atmospheric Research (OAR) to undertake a weather research program and directs the Assistant Administrator to place priority emphasis on developing more accurate and timely warnings and forecasts of high impact weather events that endanger life and property. Section 3 further defines the specific program elements to include advanced radar, aerial systems, computing/modeling, and Observing System Stimulation Experiments (OSSE) and codifies a longstanding joint OAR-National Weather Service (NWS) tech transfer program, moving its funding from NWS. Finally, Section 3 directs NOAA to support academic weather research through competitive grants and contracts.

Section 4. Tornado Warning Extension Program. This section establishes a Tornado Warning Extension Program focused on developing and extending accurate tornado forecasts and warnings beyond one hour in order to reduce loss of life, injury, and damage to the economy.

Section 5. Hurricane Warning Precision Program. This section establishes a hurricane warning precision program aimed at developing and extending accurate hurricane forecasts and warnings in order to reduce loss of life, injury, and damage to the economy.

Section 6. Weather Research and Development Planning. Section 5 directs NOAA to develop a prioritized weather research plan to guide activities authorized under the Act and restore U.S. leadership in weather modeling, prediction, and forecasting. The section requires the plan to identify, through consultation with the National Science Foundation, the research necessary to integrate social science knowledge into weather forecast and warning processes.

Section 7. Observing System Planning. Section 6 directs NOAA to maintain a list of observation data requirements and systematically evaluate the combination of systems necessary to meet such requirements. This section further directs NOAA to identify current and potential future data gaps in observing capabilities and develop a range of options to address any identified gaps.

Section 8. Observing System Simulation Experiments. This section directs NOAA to undertake Observing System Simulation Experiments (OSSEs) to quantitatively assess the relative value and benefits of observing capabilities and systems. This section identifies specific instances when OSSEs must be performed.

Section 9. Computing Resources Prioritization Report. Section 9 directs NOAA to issue a plan that: (1) assures that NOAA aggressively pursues the newest, fastest, and most cost effective high performance computing technologies in support of its weather prediction mission; (2) assures a balance between the research requirements; (3) takes advantage of advanced development concepts; and (4) identifies opportunities to reallocate existing advanced computing resources from lower priority uses to improve operational weather prediction.

Section 10. Commercial Weather Data. This section clarifies that restrictions in existing law prohibiting the sale of weather satellite systems to the private sector do not extend to the purchase of weather data through contracts with commercial providers or the placement of instruments on private payloads.

Section 11. Definitions. This section provides definitions for terms in the bill.

Section 12. Authorization of Appropriations. Section 11 authorizes, out of funds made available for OAR's operations, research, and facilities appropriations account, \$100 million for each of Fiscal Years 2014 through 2017 to carry out the weather research program established under section 3. It further specifies that out of the \$100 million provided in this section, \$80 million is authorized for weather laboratories and cooperative institutions and \$20 million is authorized for weather and air chemistry research programs. Finally, this section also authorizes \$20 million annually to carry out the joint technology transfer initiative described in section 3.